

Response Under 37 CFR 1.116
Expedited Procedure
Examining Group 1742
Appl. No. 10/828,662
Amdt. dated November 9, 2006
Reply to final Office Action of 06/13/2006
Attorney Docket No. 3824-032373

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-5 (Canceled)

6. (Currently Amended) A high strength steel for induction hardening, having improved machinability, said steel ~~consisting essentially of~~ consisting of, by mass:

carbon (C): 0.5 to 0.7%,

silicon (Si): 0.64 to 1.0%,

manganese (Mn): 0.5 to 1.0%,

chromium (Cr): ~~not more than~~ an effective amount for hardenability up to 0.4%,

sulfur (S): not more than 0.035%, and

vanadium (V): 0.01 to 0.15%,

with the balance consisting of iron (Fe) and unavoidable impurities, said steel being cast and forged to produce a component at least a part of which is then inductively hardened before use.

7. (Currently Amended) The high strength steel for induction hardening according to claim 6, having a Si content of ~~0.59~~ 0.64 to 0.9% and wherein the equivalent of carbon C_{eq} represented by formula (1) satisfies a requirement represented by formula (2):

$$C_{eq} = C\% + 1/7 Si\% + 1/5 Mn\% + 1/9 Cr\% - 5/7 S\% + V\% \quad (1)$$

$$0.75 \leq C_{eq} \leq 0.90 \quad (2)$$

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8. (Original) A component produced by inductively hardening at least a part of a product produced by casting the steel according to claim 6.

9. (Original) The component according to claim 8, wherein the component is a hub unit or a joint.

10. (Currently Amended) An induction hardened hub made from a high strength steel ~~consisting essentially of~~ consisting of, by mass:

carbon (C): 0.5 to 0.7%,

silicon (Si): ~~0.5 to 0.9~~ 0.64 to 1.0%,

manganese (Mn): 0.5 to 1.0%,

chromium (Cr): ~~not more than~~ an effective amount for hardenability up to 0.4%, and

sulfur (S): not more than 0.035%, and

vanadium (V): 0.01 to 0.15%,

with the balance consisting of iron (Fe) and unavoidable impurities, said steel being cast and forged into a component hub, and wherein at least a surface part of ~~which~~ said hub is then inductively hardened before use.

11. (Canceled)